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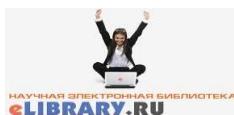
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## STUDENT-ORIENTED ORGANIZATION OF INDEPENDENT WORK OF FUTURE PRIMARY SCHOOL TEACHERS ON THE METHODOLOGY OF MATHEMATICS

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### ABSTRACT

Organization of independent work of students is a characteristic of providing knowledge at the higher school of the Russian Federation. The article discusses the organizational bases of independent work of students, the conditions of its organization are determined by the form and methodological support of independent work in the process methodical and mathematical training. The study of the organization of independent work of students in conditions of personality-oriented learning is another attempt to examine the educational process not as a set of disparate elements, drawn to us any one side, and as a single system of interacting parts which themselves show how effective this interaction.

The main goals and tasks of independent work of future primary school teachers in the process of methodical-mathematical training is mastering in the full curriculum, consistent development of skills of independent practical and theoretical activities, the formation of important professional activities of primary school teachers competence through application of knowledge.

Search and development of new pedagogical concepts, in which the possible new solutions in the organization of independent work of students is presented in this article.

**Keywords:** independent work, teacher primary school, learner-centered approach, methodological and mathematical training.

### OBJECTIVE

To substantiate organizational basis of independent work of students of the specialization: "Primary education" in the process of methodical-mathematical training on the principles of student centered learning.

### METHODS

To implement the goals, tasks at different stages of research methods were used: theoretical (analysis of professional and psycho-pedagogical literature, generalization, classification and systematization of domestic and foreign scientific literature to determine the leading directions of research and identify the status of professional training of future primary school teachers, empirical (observation, questioning, oral questioning, interviews, discussions to identify qualitative changes in the effective organization of independent work of students-teachers), pedagogical experiment is conducted to test and validate the author's personality-oriented technology of organization of independent work of future primary school teachers) and statistics (statistical processing of empirical data to form conclusions and recommendations and identify further ways to solve the problem of organization of independent work of future teachers of initial classes.

### RESULTS

A prerequisite for independent work is compliance with phasing in its organization and conduct.

The preparatory stage which involves the preparation of a teacher work programme with the allocation of the number of hours a SRS for each topic; development of educational and methodological materials for independent work organization; diagnostics of level of preparation of students.

The organizational stage involves familiarizing students with the specificity of work with educational material, familiarization with the characteristics of different types of jobs, their assessment criteria and reporting deadlines. At this stage, students read an introductory lecture, held individual and group consultations.

Motivational-activity phase involves the orientation of the student for the specific purpose of mastering the chosen specialty and a sense of responsibility for its implementation. The teacher at this stage should provide a positive motivation of independent work of the student, checking intermediate results, organization, self-monitoring, discussion of results of independent work.

Monitoring and evaluation step includes assessment of process (choice of method of execution of the task and its feasibility) and outcome (completeness, content, accuracy) of independent work.

Independent work of students on studying of a particular discipline requires careful organization: the development of control tasks in accordance with the thematic plan, their evaluation in points, the allocation of mandatory and optional tasks, identifying the individual complex of the tasks, the scoring for rating knowledge assessment tasks.

The article considers the variant of organization of independent work at studying of discipline "Methods of teaching mathematics in the elementary grades".

## CONCLUSIONS

Independent work of future teachers of initial classes in the process of methodical preparation in mathematics is a form of training organized and purposeful activity of students based on understanding of individual and group cognitive activity in system development of personality and professionally important knowledge, abilities and skills, methods of their assimilation and transformation. The system of organization of educational process, most effectively ensure manufacturability management of independent work of students is modular training. For the effectiveness of SRS appropriate conditions, among which pedagogical diagnosis of students, differentiation of students on the basis of their independence, development of personal learning strategies of students in independent work. Under these conditions, the process of learning will be the subject meaningful for students filled with personal meaning, feelings, recorded in his subjective experience.the content, accuracy) of independent work.

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## IMPLEMENTATION DIDACTIC PRINCIPLES OF CLARITY, THE LESSONS OF THE "AROUND THE WORLD" IN ELEMENTARY SCHOOL, THROUGH COMPUTER SUPPORT

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### ABSTRACT

The article describes the possibility of realization of the didactic principle of clarity with the help of computer support. The methodical purpose of the use of software learning tools. Described the computer technology used in teaching the younger students. The basic types of lessons with the use of computer support in primary school. Analyzed the stages of a lesson computer-supported. It justifies the disadvantages of using computer support in primary school.

**Keywords:** The principle of clarity, computer support, software training, lesson in elementary school.

### OBJECTIVE

The implementation of the didactic principle of clarity on the lessons of the course "Surrounding world" is effective for computer support of the educational process in elementary school.

### METHODS

Based on the requirements of the Federal state educational standard of primary General education is about public order and the needs of society, which stated as follows: "the education and development of personal qualities, meet the requirements of the information society, innovative economy, the task of building a democratic civil society based on tolerance, dialogue of cultures and respect for the multiethnic, multicultural and multiconfessional composition of the Russian society" (GEF IEO 2009) [4]. The relationship of our study, computerization of the learning process and increased use of the principle of clarity is confirmed by this quote from GEF.

### RESULTS

Formation of ideas about the world in primary school, one of the objectives of primary education, the solution of which is given special importance in educational activities. The familiarity with the environment allows to generate in pupils such qualities as kindness, desire to care and help not only each other, but also our younger brothers. Also this course gives you the opportunity to develop younger students and to form interest to studying of the surrounding world, independence and Outlook.

Computer support of the process to familiarize younger students with the outside world is a necessity arising from active joining of computer technology in our lives. The computer technologies allow to implement the principle of clarity with the new force as well as open up unlimited opportunities for the teacher during the lesson.

I. V. Robert [3] in their work considered the methodological objectives of using software for learning. These methodological goals were adapted to the topic of our research, in particular, a process of familiarization with the surrounding world: visualizing educational information on the world around them; modeling and simulation study during the lesson of the objects and phenomena of the surrounding world; laboratory work in conditions simulating on the computer the real experience or experiment; to individualize and differentiate the learning process of younger students with the outside world; monitoring and feedback in the formation of the natural history of concepts and ideas; the exercise of self-control and self-correction of educational activity of younger pupils; the development of a certain kind of mental activity (e.g., ability to compare, generalize and to draw conclusions); to increase motivation to educate the outside world due to software visual means or the use of game situations; to foster a culture of educational activity on the lessons of the surrounding world.

According to A. A. Guseva [1] the main computer technologies that can be used in the educational process include: office technologies is a software capabilities Worda, Excel, and PowerPointa, Accessa to prepare learning materials, network technologies allow realizing the search of educational materials in the local school or the global Internet network and reglamentary access; telecommunication technologies provide an opportunity to organize cooperation of users within e-mail, forums and chats; specialized application software is able to provide document management, monitoring activities, management of the school.

A. I. Gusev [1] have identified the main types of lessons with the use of computer support in a primary school: combined lessons; lessons of control and correction of knowledge and skills of students; lessons to improve knowledge and skills of students.

Since primary school is dominated by visual-figurative thinking, the key in getting acquainted with the surrounding world is the use of computer support for the implementation of the principle of clarity in teaching, resulting in the use of graphics, animation and educational films, aimed at understanding the complex natural interactions and phenomena; the

possibilities of the manipulation of various natural objects on the screen, which allows younger students to grasp the educational material with optimal use of all senses and communication links in the brain.

Thus, the lessons with computer support the interest of pupils in reading with the outside world increases. These lessons contribute to improving not only the quality of mastering of educational material, and opportunities for development in pupils of informative interest to a subject.

### **CONCLUSIONS**

Thus, it is possible to draw the following conclusions that the computer support helps: using it in the traditional primary education allows us to differentiate the process of training of younger schoolboys taking into account their individual characteristics; creatively working teacher to expand the possibilities of transmission of educational material to primary school students; the implementation of flexible management of the educational process, and is socially significant and relevant in the modern elementary school.

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## MODELING OF PEDAGOGICAL SITUATIONS AS A MEANS OF TRAINING FUTURE TEACHERS OF PRESCHOOL-AGED CHILDREN TO PROFESSIONAL ACTIVITY

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### ABSTRACT

The article presents the substantiation of the concept of "situation", the types of pedagogical situations. Describes the specific use of pedagogical situations in higher education, their role in the training of future educators of preschool children to professional activity. The essence of the algorithm and stages of modeling pedagogical situations.

**Keywords:** professional training, pedagogical situations, modeling, future teacher of preschool children.

### OBJECTIVE

Describe the specific use of pedagogical situations in the process of preparation of the future educators of preschool children to the profession.

### METHODS

Analysis of the nature of pedagogical situations as a means of preparing students for professional activities, the study of the peculiarities of their modeling.

### RESULTS

Changing the educational paradigm from traditional personality-focused requires solving a number of scientific and practical problems, one of which is the problem of achieving a qualitatively new level of preparation of the future Tutors of preschool age children to the profession. The uniqueness of this activity, its versatility, a wide range of production functions and typical tasks to determine the specificity of training, the need to integrate theoretical, methodological and practical components, the importance of the transition of the student from the objective position to a subjective – active professional self-development. Such training contributes to the consolidation of professional qualities; the resolution of emerging contradictions between existing knowledge, skills and lack of experience of their implementation in practice; mapping the two stages of realization own "I": "I – a student who masters the teaching profession" and "I am a teacher who teaches and educates children". This process is only possible through the inclusion of future teacher in educational activities or in the situation, its modeling.

The term "situation" (lat. *situatio* – position) refers to the totality of the circumstances, external and intrapersonal conditions that encourage and mediate human activity within certain temporal and spatial boundaries. In the system of higher education pedagogical situations are traditionally one of the most important means of preparation of students to professional activity, giving the opportunity to "go out" beyond the educational process (Y. Babanskiy, A. Belkin, B. Woolf, I. Sasun, N. Kuzmin A. Mudrik, A. Rean, V. Slastenin).

M. Potashnik notes that the pedagogical situation is essentially a conventional unit of the educational process, a set of "conditions and circumstances requiring the teacher to the rapid adoption of pedagogically correct decisions" [3, p. 5].

Pedagogical situations may have a different level of generality and complexity (reproductive, illustrative, partially-search to problem, analytic-synthetic, creative) and is able to solve various problems. First of all the analysis, modelling and solution of pedagogical situations and future caregivers are included in the "quasiprofessional activity", ie one that carries the traits, both academic and future professional activities. According to A. Verbitsky, "quasiprofessional activity" creates optimal conditions for the formation of the qualities necessary to a specialist, creates a positive attitude to teaching work [2, p. 129].

Pedagogical activity involves the transformation of theoretical knowledge: on the one hand, they must be holistic in nature and can be synthesized around a specific practical problems, on the other – should be the means of solving real practical problems. Use in educational process of pedagogical situations and allows students to advance, even to practice, to convert knowledge gained in the study of individual theoretical disciplines and use them to solve professional-pedagogical tasks.

Most of the teaching situations used in the preparation of future teachers to professional activity reflect the underlying processes of preschool education, often associated with the relationship of preschool children, teachers, parents, administration. The essence of the situation lies in the contradiction between the achieved and desired levels of development of children, group of children, between expectations and reality. Be aware of the content of pedagogical phenomena, the future teacher will be able only in case if you learn to see in every situation the potential for the development of the child, the pre-school groups or children's collective as a whole.

The pedagogic situation is always specific, it may occur spontaneously or be specifically designed. Ways to create pedagogical situations varied: encourage future educators to the explanation of the behavior of the situation, assessment of development of personal qualities of the child of preschool age; using existing experience to find effective

solutions to problems; encouraging analysis, synthesis, generalization, systematization and other mental operations; the extension of assumptions about future actions.

Modeling pedagogical situations involves the process of creating situations, models that mimic the condition and the dynamics of educational process in preschool educational organizations. You must strive to ensure that in the course of modeling pedagogical situations, the future teacher didn't stick to the template I developed in the process of active activities, the plan that he was able to predict, to justify the possible results, to carry out reflection. However, the primary goal of studies using pedagogical situations is not to search way to solve it (although, without a doubt, this is important), and to develop the skills of future educators to creatively organize professional activities. The potential pedagogical situations not only improve the minds of future educators, the development of professional qualities, but also in creating conditions for creative search, which in turn requires some effort in mastering new knowledge and creative vision of the future of the profession (V. Anishchenko [1, p. 29].

For precise modeling of pedagogical situations, you can use a particular algorithm: 1) problem definition; 2) ensure that future caregivers access to information, more fully describing a situation conducive to its realization; 3) the interaction of the teacher and the students (discussion, conversation, etc.), the purpose of which is to determine the content and nature of the pedagogical situation, the choice of forms and methods of its modeling; 4) creating individual or group projects that simulate the situation (games, creative, communicative, informational, practice-oriented); 5) free communication, involving the discussion of a simulated pedagogical situation and ways of its solution.

Stages of modeling pedagogical situations due to the level of knowledge, readiness and skills of students. On the first (preparatory) stage is a reproductive situation (to analyze the situation, isolate the problem to determine whether the activities of the teacher requirements of the educational process, whether educational interventions are effective to predict the consequences of possible solutions for the situation). In the second stage the nature of pedagogical situations change – they become more complex and atypical, often engaging in conflict with the prevailing view among students of educational stereotypes (to understand the conflict, to resolve a pedagogical problem). The third stage involves the modeling of pedagogical situations and creative character, design their own strategies of behavior, which is often implemented in real conditions of preschool educational institutions during teaching practice.

## CONCLUSIONS

Thus, the modeling of pedagogical situations can be seen as a necessary means of preparation of the future Tutors of preschool age children to professional activity, an important condition for the formation of personality, development of professional skills and qualities, the formation of professional values and attitudes, enriching experience of making effective decisions.

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## TUTOR SUPPORT IMPLEMENTATION OF INDIVIDUAL EDUCATIONAL ROUTES OF FUTURE TEACHERS OF PRIMARY EDUCATION BY USING MULTIMEDIA TOOLS

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### ABSTRACT

The article discusses the use of multimedia tools used to efficiently design and passage of individual educational routes of future teachers of primary education. Development and introduction in educational process of higher school of modern information technologies aimed at qualitative changes in the results of the educational process, is of particular relevance. Contemporary higher education involves a shift from traditional mass-reproductive (linear) to individually-creative (non-linear) system of education, which is based on not only the principles of classical didactics, and principles of interactivity, reflection, the nonlinearity of information structures and processes, the combined use of different forms of learning. The implementation of nonlinear learning process in the training process involves the development of individual educational routes of future teachers of primary education, which in turn provide a better learning outcome. The process of construction and implementation of individual educational routes of students requires specific knowledge, skills and experience that future teachers, as a rule, formed either low or non-existent. The purpose of this article was to analyze the effectiveness of use of multimedia in the process of tutor support the implementation of individual educational routes of future teachers of primary education.

**Keywords:** multimedia tool, individual educational route tutor.

### OBJECTIVE

To analyze the effectiveness of use of multimedia in the process of tutor support the implementation of individual educational routes of future teachers of primary education.

### METHODS

Analysis of pedagogical and psychological literature, synthesis of information on the research problem; classification and comparison of the information received.

### RESULTS

Implementation of tutor support of the educational process involves a subject-subject interaction. Without perception tutor student higher education institution as an equal partner tyutorskoy implementation of technology is impossible. The main mechanism of formation of subject-subject relations, including in the design process and the passage of individual educational routes are the professional and personal qualities of the teacher: the ability to co-operation and co-creation; the ability to analyze, compare, and design professional activities in accordance with the latest educational goals, plan the professional activity, scientific and reasonable to select the forms and methods of the educational process in accordance with modern social and economic needs of society; demands combined with respect; objectivity in the assessment; pedagogization awareness of the need for environmental protection, the possession of psychological-pedagogical methods of research and diagnostics of individual and collective; possession of pedagogical techniques and educational technologies; willingness to build pedagogical communication based on a variety of joint activities and accounting of natural abilities and interests of students; the desire for self-education and self-education.

Tutor, who works in modern conditions without the use of modern information and communication technologies in general and multimedia in particular difficult to implement individual routes students with a high level of efficiency.

For multimedia assets used in the training of future teachers of primary education include: audio, video conferencing, virtual classrooms. video conferencing, video lectures, interactive multimedia lectures, e-learning courses, podcasts, vebtury (webtours), webinars. The most well-known and frequently used multimedia e-learning materials belong to electronic textbooks, teaching aids, computer problem books, tutorials, training presentations, hypertext information and reference system (files, directories, reference books, encyclopedias, atlases, test and simulation programs, program-simulators, educational programs and interactive game elements).

### CONCLUSIONS

Tutor support the design of individual educational routes requires comprehensive training of teachers towards the use of multimedia. This process ensures the implementation in the educational space of the higher school of subjectivity principles of individualization, interactive, action-oriented, modular and dialogic educational processes.

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## SPECIFICS OF ARTS IN THE PRESCHOOL DESIGN ACTIVITY

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### ABSTRACT

The article reveals the importance of design activity as a means of development of preschool-age children. The author gives a definition of children's design activity and reveals its peculiarities. The article describes the stages of familiarizing children with design and quality indicators of children's design activity. The article identifies the methods of upbringing of design culture of children of preschool age.

**Keywords:** teaching preschoolers, children design activity, design work, design creation, constructing.

### OBJECTIVE

To consider the specifics of the development of creativity PRESCHOOL CHILDREN DURING design activity

### METHODS

Analysis of pedagogical and methodological literature, synthesis of information on the research problem; classification and comparison of the information received.

### RESULTS

At the present time, in connection with the introduction of the new federal state educational standards and the development of their respective programs for pre-school educational institutions, relevant problem-round education of man, which would be developed in harmony emotional, rational and creativity. Teachers preschool education is necessary to destroy the frozen patterns of learning and put into practice new activities, contributing to stimulate the child's own creativity. One way, which leads to this purpose, can be called design.

Design activities - is an artistic design, aimed at the creation of useful, convenient to operate and aesthetic products. Design, touching all spheres of human life requires a responsible attitude to the social and cultural space, encourage actively and creatively to assert himself as a person. Children's design activities, undoubtedly has great potential for developing all spheres of the individual child of preschool age. Activities in the field of design helps each child to unleash their creativity and express themselves. A variety of materials develops the imagination and imagination of children birth to original ideas, makes you want to come up with new designs and use them in games. Children learn are also designed an image to search for the means of its realization, to think through the sequence of work and to achieve results.

Children's design incorporates the concept of "design-crafts" and "design project." Design can be called a small needlework crafts, souvenirs, jewelry, children performed independently and simultaneously. The design project provides a more complex, long, and the collective nature of the activity. Children's design creativity can flourish only if the targeted guidance from the teacher. Such guidance will be effective in the event that the teacher understands the meaning and necessity of these activities, owns teaching methods, has the necessary knowledge in the field of art itself has pictorial skills.

Teaching preschoolers design activity involves certain stages (cognitive, emotional-semantic; the activity, creativity. It should be emphasized that the training of preschool design activity is not conducted through the learning of scientific knowledge and concepts, namely in terms of the development of aesthetic taste, intuitive understanding of beauty and functionality.

### CONCLUSIONS

When systematically targeted educational work training design activities possible in the preschool years. The proposed system of work is based on the unity of visual and expressive, imaginative and logical, aesthetic and utilitarian, and should help the child to understand the peculiarities of the environment, the possibility of interaction with it. Introduction of design elements, in our opinion, will allow to realize the important task at this stage - the development of creative abilities, education of aesthetic culture and active knowledge of a child of the world.

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## GENERAL CHARACTERISTICS OF THE CONCEPT "PROFESSIONAL-METHODICAL COMPETENCE" OF A FUTURE TEACHER PRESCHOOL IN PSYCHOLOGICAL-PEDAGOGICAL LITERATURE

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### ABSTRACT

A comparative analysis of the notion of professional-methodical competence" in psychological and pedagogical literature, the concept of "competence" and "competence", a list of the main categories of key competencies and competence of future educators of preschool educational institutions.

One of the problems of modern society is the need for competent, highly qualified specialists, competitive on the labour market. Therefore, educational institutions currently, considerable attention should be paid to formation at future specialists professional competence of another student.

The modern stage of development of professional education in the Russian Federation involves the transition to the competence approach, the formation of future graduates required for professional activity knowledge, abilities, skills, and a broad spectrum of socio-personal and professional competencies and not only knowledge of the student teacher. The emergence of the competence approach, as defined by A. Barannikov, is the pattern of development of the education system, due to the search of ways of approaching the continuous development of society's needs.

**Keywords:** competence, competence, competence approach, teacher and educator.

### OBJECTIVE

To analyze the concept of professional-methodical competence" in psychological-pedagogical literature, and compare definitions of the concepts "Competence" and "competence" from the point of view of competence approach in education.

### METHODS

Analysis of pedagogical and psychological literature, synthesis of information on the research problem; classification and comparison of the information received.

### RESULTS

The basic categories of the new approach are the concepts of "competence" and "competence". The basis of the term "competence" is the Latin "competentia" which means knowledge, the terms of reference of the person, experience and a "competence" refers to the education, skill, talent. To be competent is one thing, that to feel free, well-versed in any area of life. Competence, in turn, is a small element of the broader concept of competence.

It should be noted that different authors have their own vision for the formulation of these concepts. Some believe these concepts are synonymous and synonymous, while others distinguish between them, and I believe different in nature.

Different approaches to definition of concepts "competence" and "competence" suggests that they have broad application in science and practical human activity. Special attention of domestic and foreign scientists are paying to the concept of "professional competence". Thus, many researchers argue that the educational process of higher educational establishments should be aimed at training students to have a specific objective and predictable result, which is based on the process of formation of professional competence.

One of the common definitions of this term in psycho-pedagogical literature is: "a quality, property, or as a specialist providing individually, or collectively, its physical, psychological and spiritual need, as well as the need to meet the requirements of a certain profession, speciality, specialization, qualifications standards office occupied the position of" it Should be noted that the combination of these competencies is an indicator of the maturity of the person, readiness for professional activity and communication, formation of the personality and individuality of a professional. Professional competence provides the ability to perform professional activities with high productivity and consists of a set of necessary competencies.

after analyzing the literature devoted to the study of problems of professional competence, we concluded that professional competence is a complex construct, which includes professional knowledge, abilities, skills, readiness activities, as well as a number of professionally important personal qualities such as: creativity, mobility, communication skills, tolerance, equanimity, compassion, kindness, aspiration to self-knowledge, self-development and self-realization, self reflection and more. You should note that a key competence is multi – dimensional education, refers to industry-wide content of educational standards and is a special way structured set of personal qualities, giving the opportunity to participate effectively in many social spheres, contributing to the development of society and personal success, as well as those that can be applied in many spheres of life.

Key competencies form the basic set of the most General concepts which should be detailed in a set of knowledge, skills, values and relationships with the educational sectors and life spheres of school students. Key competencies, by their nature, are cross-cutting and have to be achieved in the process of learning through all subjects and educational activities.

Thus, competencies are the indicators to determine readiness for life, his further personal development and for active participation in society.

It can be concluded that at the present stage of development of pedagogical science still lack a clear definition of "professional competence". Analysis of pedagogical and psychological literature suggests that there are several approaches to defining this phenomenon. Foreign researchers professional competence is considered as "advanced knowledge", "efficiency", "ability to carry out specific activities".

### CONCLUSIONS

Thus, it is difficult to overestimate the work of local authorities in Crimea – of district councils. They actively used the progress in agronomy, introduced the use of technical means and organized exchange of experiences in the course of events (congresses, meetings, exhibitions) for pest control. The range of issues covered by the activities of district councils of agriculture of Crimea was very wide, which favorably affected the development and the state of the industry and agriculture of the peninsula.

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## THE USE OF ETHNOGRAPHIC MATERIAL IN THE PROCESS OF FORMATION OF CULTURAL COMPETENCE OF PRIMARY SCHOOLCHILDREN

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### ABSTRACT

Analyzed concepts: ethnography, folklore, folk culture, the appropriateness of the use of Ethnography for the formation of the primary school cultural competence, the role of national culture in the education and training of the younger generation.

**Keywords:** ethnology, folklore, and popular culture.

### OBJECTIVE

To reveal the peculiarities of the use of ethnographical material in the process of formation of cultural competence of primary school students.

### METHODS

To analyze the effectiveness of use of multimedia in the process of tutor support the implementation of individual educational routes of future teachers of primary education.

### RESULTS

In order to form a cultural component of cultural competence in the process of teaching literary reading, you need to use ethnographical texts, which take up the pages of historical past of the country, because Ethnology is the key to understanding the national spirit, awareness of the uniqueness and identity of each nation, its individual traits in the General structure of human civilization.

The study of Ethnography is carried out in such a way that the characteristics and elements of the national culture of Junior high school student learns how organically inherent, naturally peculiar to him and his immediate environment.

National culture can most fully demonstrate folk traditions. In the national educational system, traditions, customs and rites act as interrelated forms aesthetically educational influence on the personality of the pupil, are the means of transmission from generation to generation of folk practices, regulate the behavior of the individual in the General cultural ideas, ideals, and values.

The use of Ethnography in educational process promotes the formation of human morality, willingness to perform the covenants of their parents. Using the experience of previous generations, helps to implement in the educational process of all the valuable folk wisdom, to actively involve students in the assimilation of the heritage of his people, because the child is deprived of an opportunity to draw on the experience of mankind, can not fully develop.

In modern conditions of development of the school the necessity and importance of using material of Ethnology in the system of educational work is not in doubt, both scientists and teachers-practitioners.

Among the didactic tools of Ethnography has an important place of riddles is one of the oldest and most widespread types of folk art; they are seen as a means of development, training and education of children. A lot in common with the riddles are Proverbs and sayings. Unites them in the first place meteoriticist, which is based on observations of nature and life, as well as conciseness and clarity of presentation. A kind of a folklore genre, widely used in teaching practice are tongue twisters. In the formation of certain positive traits of younger students the significant role played by the Russian folk tale, which belongs to the folklore sources, and brings joy to adults and children. Folk tale has an important place in the educational work of primary school, because it reflected the relationship between people, the morals and ethics of people, paintings of the life of nature.

In the Junior school age students have a sense of pride, self-esteem, therefore, acquaint children with the life and cultural heritage of the Russian people, with national and folk symbols, fostering interest and respect for national traditions, holidays. For students of primary school age are attractive extra-curricular activities, in particular, folk mornings and holidays.

### CONCLUSIONS

Thus, folk tradition, folk culture is the best material for the education of younger students, their activity and interest. To introduce children to oral folk arts, customs and traditions of the Russian people, we bring the best traits, well-established in traditional pedagogy, the feeling of love to the native land, respect for people and their spiritual treasury.

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## PAROTID TUBERCULOSIS A RARE NOTION, NEW APPEARANCE

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### ABSTRACT

Tuberculosis of the parotid gland is a rare diagnosis even in endemic areas; we describe a case of left parotid gland tuberculosis, in a 53 years old male. Diagnosis of the disease was made by the histopathologic examination of post-operative specimen and Patient was initiated on antitubercular chemotherapy. This case study highlights the importance of adding tuberculosis of the salivary glands in the differential diagnosis of salivary gland masses.

**Keywords:** Tuberculosis, parotid gland, rare, extrapulmonary.

### IMPLICATION FOR PRACTICE

Parotid tuberculosis is a very rare condition, less than 200 cases were acknowledged until now, it can present with no signs or symptoms relating to it, the implication of parotid tuberculosis in the differential diagnosis of salivary gland masses can reduce the need of unnecessary surgery.



**Figure 1:** Axial cut image showing heterogeneous enlargement of the left parotid gland with multiple focal necrosis, post contrast showing heterogeneous enhancement of the gland and non-enhanced areas.



**Figure 2:** Coronal cut image showing heterogeneous enlargement of the left parotid gland with multiple focal necrosis, post contrast showing heterogeneous enhancement of the gland and non-enhanced areas.

### BACKGROUND

Parotid gland tuberculosis is a very rare form of presentation of extrapulmonary tuberculosis. Extrapulmonary tuberculosis representing 20% of all cases of tuberculosis disease [1], from which head and neck tuberculosis represents 10% [2], the diagnosis of parotid tuberculosis depends on physicians experience and a very high degree of clinical suspicion, less than 200 cases were acknowledged since von Stubenrauch first described this condition in 1894[3]. This case study highlights the importance of including tuberculosis in the differential diagnosis of salivary gland masses.

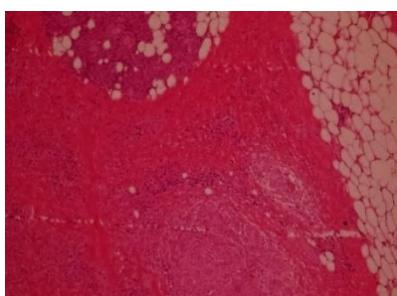
### CASE DETAILS

A 53 years old male presented with a left parotid swelling for 4 months. His medical history is significant for hypertension, diabetes mellitus type 2, ischemic heart disease, heart failure, and hypothyroidism. The swelling appeared gradually over the past 6 months and was associated with difficulty opening the mouth and twitching of the left cheek, with no history of fever or sialorrhea. There is no personal or family history of tuberculosis, there were no abnormalities on physical examination of the patient, local examination revealed a left parotid swelling measuring 3.5\*4.5 cm, firm with ill-defined borders extending just above the mandibular angle, with no skin changes or sinus over the swelling, local

temperature was normal and the movement of the cervical spine was normal, no discharge or calculus in the region of the salivary ducts with no tonsillar enlargement, there were multiple cervical lymph node enlargement in the anterior and posterior auricular groups and a submandibular small nodule, patient has poor oral hygiene and multiple dental carries.

On investigations his hemoglobin was 13.7 mg/dl, his leukocyte count was 6.300, leukocyte differential count was neutrophils: 63%, lymphocytes: 26%, monocytes: 8%, eosinophils: 3%, basophils: 0%. and TSH: 44.527uIU/ML, glycated hemoglobin(HbA1c): 5.9%, chest radiography was normal, neck CT scan with IV contrast showed a left parotid mass affecting the superficial and deep lobes, size about (3\*3.7\*4cm) of soft tissue density, with necrosis that shows contrast enhancement may be due to malignant lesion, with obliteration of the fat plane between it and the left masseter muscle, with small lymph node in the parotid region (figure 1,2), provisional diagnostic of parotid malignancy was made and plan for total parotidectomy was done. On histopathologic examination of the post-operative specimen there was fibrofatty tissue enclosing salivary gland tissue and one lymph node with necrotizing granulomatous inflammation, consisting with caseating granulomatous sialadenitis and caseating granulomatous lymphadenitis (figure3,4,5), ZN stain was not revealing, and tuberculosis can't be ruled out and further investigation was recommended,

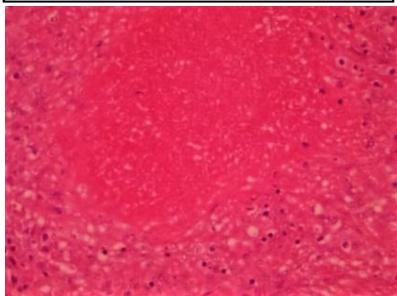
We performed a manteaux test on the patient which was negative with 9mm induration and HIV test which was also negative, the diagnosis of parotid tuberculosis disease was made upon histopathologic examination and Arrangements for antitubercular chemotherapy were made and patient was started on rifampicin, pyrazinamide, ethambutol and rifampicin for six month of duration.



**Figure 3:** Parotid gland tissue with caseating granulomatous, (H&E x40).



**Figure 4:** caseating granulomatous inflammation, (H&E x100).



**Figure 5:** caseating granulomatous inflammation, (H&E x400)

involve multiple sites in the parotid gland and periparotid region [8]. But the problem here is that there are no specific signs of tuberculosis in the parotid gland with any of these imaging techniques. In our case the use of CT-scan with IV contrast was attributed to the high suspicion of malignancy from the clinical data. We may use incisional biopsy or drainage but with caution as it may lead to the devolvement of cutaneous fistulae. Excisional biopsy becomes obligatory in case those other investigations are non-contributory.

Risk factors implicated in the pathogenesis of tubercular disease are various from which in our case we meet diabetes mellitus and its role in compromising the immune system [12] and associated comorbidities, with patient low socio-economic status and the provenance from an endemic zone.

The differential diagnosis of such case may include benign malignant neoplastic diseases of the parotid gland and sarcoidosis.

Usually if the diagnosis is known before surgery medical treatment in the form of anti-tubercular chemotherapy for duration of six months can lead to resolution of the lesion.

## DISCUSSION

Tubercular disease is a common diagnosis in the developing countries and it has an increasing incidence in the developed countries due to the recent immigration movement from the Middle East and the developing of a new resistant strain of mycobacteria and the co-infection with HIV [4]. Tuberculosis generally affects the lungs, extrapulmonary forms considered a little bit uncommon, account for approximately 20% of overall active disease, from which infection of the head and neck region represents 10%, salivary gland infection is extremely rare, and this may be due to the inhibition effect of saliva upon mycobacteria [5].

Parotid tuberculosis pathogenesis remains uncertain until now [1]. Implication of the parotid gland and regional lymph nodes may occur due to an active mycobacterial infection in the oral cavity that emits mycobacterium that ascend through the ducts of the salivary gland or through the lymphatic drainage of the associated lymph structures. Or through hematogenous or lymphatic spread from a primary lung focus [6].

Tuberculosis of the parotid gland may present in various forms. Most commonly as a localized mass due to intracapsular or pericapsular lymph node infection. Another form is a diffuse glandular enlargement due to parenchyma infection (acute sialadenitis). Or as a periauricular fistula or abscess [7].

Parotid tuberculosis diagnosis is a difficult one in the absence of a primary lung disease or without any systemic signs or symptoms. Most of the cases initial presentation being a gradually growing mass over a period of two to six months without local signs or skin changes and they are extremely difficult to be distinguished from parotid neoplasm [8]. In general, physical examination is unrewarding. A chest radiograph may be helpful if lung disease is present. But less than 50% extrapulmonary patients have no radiological evidence of lung disease [9]. In our case the patient chest radiograph did not exhibit any evidence of active or prior lung infection. The use of manteaux screening test can provide information that is very helpful for the diagnosis. In our case we performed a manteaux test after the surgical excision and it was negative with 9 mm induration.

Definitive diagnosis of tuberculosis disease usually requires mycobacteria isolation and identification for the diagnostic specimen. As Maynard stated that there were no methods of distinguishing this infection from a parotid gland neoplasm except by histologic examination [10]. But there are many Techniques useful and reliable for the diagnosis of tuberculosis disease such as Fine needle aspiration cytology (FNAC) [1], which has a sensitivity of 81–100% and specificity of 94–100% [8]. But it has a default in large parotid neoplasms as these are often necrotic [11]. And it may be helpful for the possibility to culture the aspirate, but that requires an initial suspicion and may require long time to obtain a result. Other techniques like imaging studies generally involve ultrasonography, computerized tomography and/or magnetic resonance imaging. The later having superiority in delineating the nature of the disease since tuberculous infection may

## CONCLUSION

Tuberculosis of the parotid gland remains a difficult diagnosis due to the similarity of presentation with multiple parotid malignancy, we highlight the importance of implicating parotid tuberculosis in the differential diagnosis of parotid gland masses, and urge national and international health authorities for a more strict policy considering the scanning of new immigrants from endemic countries.

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## THE DEVELOPMENT OF FIELD CROP IN CRIMEA (the first half of the XIX century)

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### ABSTRACT

After annexation of Crimea by Russian Empire there have been some changes in its development, which were due to the emigration of Crimean Tatars, colonists settling in the region (left its marks on the character and features of agriculture); distribution of large plots of land to the relatives and retinue of royal family, military; the gradual transformation of the South Coast into the summer residence of the Russian tsars; the involvement of the peninsula to improve economic activities and so on. Political and socio-economic changes which took place in Crimea in the first half of the XIX century contributed to radical changes in the nature of field crop in the second part of the century to its becoming the leading sector of the regional economy.

**Keywords:** Crimea, field cultivation, farmers, grain economy.

### OBJECTIVE

The development of field crop in Crimea (the first half of the XIX century).

### METHODS

After annexation of Crimea by Russian Empire there have been some changes in its development, which were due to the emigration of Crimean Tatars, colonists settling in the region (left its marks on the character and features of agriculture); distribution of large plots of land to the relatives and retinue of royal family, military; the gradual transformation of the South Coast into the summer residence of the Russian tsars; the involvement of the peninsula to improve economic activities and so on. Political and socio-economic changes which took place in Crimea in the first half of the XIX century contributed to radical changes in the nature of field crop in the second part of the century to its becoming the leading sector of the regional economy. Except soviet historians [5; 6], modern scholars [2], who studied the peculiarities of agriculture of Crimea, the topic was allegedly ignored. However, it is very important to fill this gap due to the need to fill the pages of the agrarian history of the region.

### RESULTS

In the first half of the XIX century radically changed their attitude to Crimea by the authorities, wealthy citizens and intellectuals. In 1839 the historian and writer N. Vsevolozhskiy noted strategic unattractiveness of Crimea as a result of the remoteness of Russian capital, the slow development of industry, agriculture, science, reluctantly penetration of capital to the peninsula [4, p. 81].

Grain farming in Crimea in late XVIII century was poorly developed. The settlement into the peninsula Russian, Ukrainian peasants and foreign colonists had a positive impact on the rise of the productive forces land. In some parts of Crimea in early XIX century widely used three-field mainly in the valleys of the rivers and in the foothills. On winter fields were sown rye and barley, on spring fields - wheat and millet. Field crop of farmers and landowners of Russian origin was presented as pasture system. Fields usually located at a distance of 10-20 miles from the village, so due to lack of funds almost no fertilizers were introduced. Gradually the land lost fertility, which led to a decrease in yield. Crop rotation was as follows: after raising its virgin lands seeded millet and flax, and then two or three spring wheat (cv "arnautka" and "girka"), followed by rye, barley, oats (in small quantities). winter wheat (variety: "Crimean winter") were small, dominated the field sown with rye [3, p. 126-127]. However, in other areas of the peninsula to 60-ies of XIX century dominated shifting farming system.

Grain farming gave way to the championship in the steppe regions of extensive livestock and in mountain - horticulture and viticulture. Thus, in the mountainous part of the peninsula was also developed winemaking, horticulture, tobacco. Near Simferopol and Feodosiya wine, gardening and husbandry was widespread. Steppe part specialized in cattle breeding and agriculture [1, p. 3]. In period from 1802-1811 on 1851-1860 average annual grain harvest increased from 426,000 to 1,746,000 quarters, which was about 4 times. The main producers of bread in the middle of the XIX century in Crimea were state peasants: they collected on their fields in 5,5 times more than landowners and their farmers [6, p. 15-16].

Every year the own crops of grain to the population of Crimea lacked, so it usually was bringing from the northern counties of Tavrida province, Kherson, Taganrog. Transportation of grain in the steppe part of the peninsula on oxen (another species did not yet exist) was a cheap and was worth 5-10 cents by silver per pood. These rates were then cheaper than in Western Europe cost grain transportation by rail for farmers. For example, in France, the cheapest transportation in the lowest fare cost 35 cents by silver. This factor for a long time hindered the construction of the railway network in the region, as well as overall economic development. The rates in the mountainous part of Crimea were

significantly higher, which was associated with the complex terms of delivery of grain, absence of quality communication paths and the like. Prices of rye in the north of the peninsula ranged from 2 to 3 rubles by silver, wheat - from 4 to 5 rubles by silver. In Yalta and Feodosiya prices for all agricultural products, especially bread was slightly higher, and in Sevastopol, Simferopol and Kerch higher by 5-10 % [3, p. 135].

In Crimea the cultivation of flax with the subsequent use as seed for export were practiced. Every year this practice expanded, because the demand was constant, and the prices high. In the 1840s, the peninsula began to grow special Crimean flax variety that matured for 8-10 days earlier, so less affected by drought. The seeds of it were large, but had a thick skin and give less oil than other varieties. Hoping to get super-profits the population rapidly sown their land this variety. But after 7-8 years of continuous cultivation of flax varieties ripening, it became clear that it gradually degenerates and yields less oil. This factor was further decisive in the choice of the locals of other varieties.

Slightly grown hemp, nothing more than potatoes, pumpkins, melons. On the cultivation of melons specialized in Yevpatoriya. There were three main varieties of "Russian", "Stambolka", "Mayhavun". Also there were plantations, for example, in Shehchkari where conducted experiments on acclimatization of foreign varieties. There grew 16 varieties, including varieties were "Pineapple" and "White African" [3, p. 141]. In Yevpatoriya district specialized on onions, because he had a long resistance to damage, although it was bitter. On the southern coast also grew this culture. But it had there large and sweet taste, for which he received the glory of the so-called "Yalta" onion, but it kept bad.

## CONCLUSIONS

In the middle of the XIX century Crimea remains largely untapped domestic and economically underdeveloped. Farms are mostly worked on the basis of the patriarchal traditions. The prevailing farming.

in the analyzed period the product features only began to acquire viticulture, wine making, gardening. Lagged behind agriculture. Grown products remained uncompetitive on the national agricultural market. Lack of transport routes led to its significant losses. Overall, however, the industry has evolved. There was certain specialization, which further positive impact on the development of field crop and determined its primary importance for the economy of the region.

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## EFFICIENCY OF (LRINEC) THE LABORATORY RISK INDICATOR FOR NECROTIZING FASCIITIS IN AND CELLULITIS DIFFERENTIATION.

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### ABSTRACT

Necrotizing fasciitis is a rapidly progressive inflammatory infection of the fascia, with secondary necrosis of the subcutaneous tissues. In recent years the frequency of necrotizing fasciitis has been on the rise because of an increase in immunocompromised patients. The outcome of this disease significantly depends on timely and accurate diagnosis and therefore the selection of the correct strategy of treatment. Differentiation of the necrotizing fasciitis from the non-necrotizing infections of the soft tissues and the severe forms of cellulitis is often difficult.

In order to differentiate the necrotizing fasciitis from the severe forms of cellulitis, in the surgery department of The First University Clinic of Tbilisi State Medical University, the method of determination of the Laboratory Risk Indicator for Necrotizing Fasciitis (LRINEC) was used. The effectiveness of the method in diagnose of the disease and for prediction of the outcome has been established.

**Key words:** Necrotizing Fasciitis, cellulitis, soft tissue infection, LRINEC.

### INTRODUCTION

Necrotizing fasciitis is a rare, but severe disease with high mortality, which is acute, rapidly progressive inflammation of the fascia, followed by the secondary necrosis of the subcutaneous tissue.

The speed of spread of the process is directly proportional to the thickness of the subcutaneous layer [1,2].

Necrotizing fasciitis may develop in different parts of body, though it is revealed with different frequency, in different anatomic regions: limbs (53%), perineum and glutea (20%), torso (18%), head and neck (8.9%).

Every year 0,4-1 case of disease occur per every 100 000 of population. The disease is revealed in any age groups, though it is mostly frequent in people between 38-41 years old. It rarely occurs in children; 2-3 times more frequently stated in males, than in female. Risk groups include patients suffering from diabetes, having transplanted organs,cancer patients, patients with cardiovascular disease, HIV infection and individuals with neutropenia.

It is remarkable, that in recent years, the increase in the number of patients with immunosuppressive diseases, marked a sharp increase of necrotizing fasciitis incidence and despite the modern and improved treatment methods being used, the reported mortality rate is between 20-80%, [3,4,5,6].

In most cases, the infection is polymicrobial (55-80%). And in 1/3 of them *Staphylococcus aureus* is present. The majority of monomicrobic infections are caused by β-hemolytic Streptococcus.

The invasion of the pathogenic agent in the soft tissue can be the result of small trauma, burns, insect bites, and medical procedures. Hematogenous spread of infection is also possible. In many cases, the exact cause of the disease is impossible to be stated [3,4,5].

As the Necrotizing fasciitis starts in the deep layers of the soft tissue, these infections can be difficult to recognize in their early stages. Having the general signs of infection including fever, tachycardia, diaphoresis, sometimes disturbed mental status and diabetic ketoacidosis, local changes on the skin surface are minimal. Even on the later stages distinction of necrotizing fasciitis from the non-necrotizing infection of soft tissues and cellulitis it is not always easy. In order to clarify the diagnosis it is recommended examine the condition of the subcutaneous tissues by finger through small 1-2 cm skin incision over the inflamed tissue for 1-2 cm .The radiological investigations methods are also used (ultrasound, computed tomography, magnetic resonance imaging) [10-11].

Nevertheless, different author confirm that the diagnosis of the necrotizing fasciitis is correctly stated only from 15 to 34% of patients. At the same time, timely and accurate diagnosis of the disease influences the strategy of treatment and outcome.

### AIM OF THE RESEARCH

Our aim was to find out how informative is the laboratory risk index for necrotizing fasciitis (LRINEC) determining method in the process of differential diagnosis of the the soft tissue infections, being provided by C.H.Wong- et al in 2004 [12,13].

## MATERIALS AND METHODS

A retrospectively review of the medical charts of 28 patients treated at the Department of surgery of The First University Clinic of TSMU with diagnosis of necrotizing fasciitis and cellulite, was carried out. 19 of them were male, 9 – female. Age varied from 39 up to 72 years. In 18 cases there was lower limbs infection, in 3 – gluteal, in 3 – torso, in 4 perineal.

All the patients underwent surgery. The repeated operation – necrectomy was done in 6 cases (2 -1, 2- 2, 2 - 3), lower limb amputation was performed in 2 cases. 1 patient died because of multiple organ failure.

The bacteriological study of the intraoperatively obtained material, showed the following results: 7 cases methicillin-resistant Staphilococcus aureus  $10^7/\text{ml}$ , 4 cases - methicillinsensitive Staphilococcus aureus  $10^7/\text{ml}$ , 8 cases - Klebsiella pneumoniae  $10^8/\text{ml}$ , 2 cases Clostridium septicum  $10^6/\text{ml}$ , 5- cases - Escherichia coli  $10^8/\text{ml}$ , 2 cases -Proteus mirabilis  $10^5/\text{ml}$ .

We determined the laboratory risk index score (LRINEC), according to the laboratory analysis of patients. Therefore we stated the scores for 6 laboratory data [table 1].

		Score
CRP (mg/L)	<15	0
	≥15	4
WBC count ( $\times 10^3/\text{mm}^3$ )	<15,000	0
	15,000–25,000	1
	>25,000	2
Hemoglobin (g/dL)	>13.5	0
	11.0–13.5	1
	<11.0	2
Sodium (mmol/L)	≥135	0
	<135	2
Creatinine (umol/L)	≤1.6	0
	>1.6	2
Glucose (mmol/L)	≤180	0
	>180	1

Table 1. Table of laboratory risk index score calculation

Laboratory Risk Index score (LRINEC) results were compared with operative exploration findings and the the results of the operating material morphological study (which is the gold standard for the soft tissue infections diagnostics).

### Received results

According our results, the score of laboratory risk indicators for 7 patients were 6 points and more. In all of these cases, operative exploration findings (presence of grayish necrotic fascia, lack of resistance of normally adherent muscular fascia to blunt dissection, lack of bleeding of the fascia during dissection, and the presence of foul-smelling "dishwater" pus) and morphological study of the intraoperative material confirmed the diagnosis of necrotizing fasciitis. In 6 cases, where the LRINEC was less then 6 points, the diagnosis of cellulitis was confirmed.

The severity of the disease and outcome correlated with the number of laboratory risk indicator points.

### Conclusion

Despite the lack of material, our results suggest that determination of the risk of laboratory point indicator (LRINEC) is the simple, informative, inexpensive method for differentiation of necrotizing fasciitis from severe form of cellulites. No additional researches or invasive examinations are needed. It takes a little time to be made and can be carried out in all clinics and gives the possibility to predict progressing of the disease and its outcome.

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## ВЕРТИКАЛЬНО-ФРЕЗЕРНЫЙ КУЛЬТИВАТОР

Вертикально-фрезерный культиватор – это вид почвообрабатывающего орудия, которое получает привод от вала передачи мощности трактора и соединение агрегата с ним при помощи трехточечной системы навески. Основная особенность машины – измельчение земли движением миксера. Земля сохраняет свою влагу, так как в момент обработки горизонтальные слои почвы не перемешиваются. Машина работает вертикально, что препятствует образованию поверхностного плотного слоя. Вертикально-фрезерный культиватор предназначен для подготовки почвы под любые культуры. Каток в задней секции машины прикатывает почву и сохраняет природную влагу. Предохранительный вал защищает машину от возможных неисправностей и поломок при наезде на камни, корни и прочие препятствия.

Технические характеристики	СМ-1323	СМ-1324	СМ-1326	СМ-1332
<b>Рабочая ширина/мм</b>	2000	2500	3000	4000
<b>Рабочая глубина /мм</b>	280	280	280	280
<b>Длина / мм</b>	2200	2700	3200	4200
<b>Ширина / мм</b>	1500	1500	1500	1500
<b>Высота/ мм</b>	1200	1200	1200	1200
<b>Масса / кг</b>	950	1200	1320	1740
<b>Мощность трактора / Hp</b>	80-90	90-100	110-120	120-140



## ВЕРТИКАЛЬНЫЙ СМЕСИТЕЛЬ КОРМОРАЗДАТЧИК

Вертикальный смеситель кормораздатчик предназначен для измельчения и смещивания различных типов кормов для животных, а также для последующей транспортировки кормовой смеси в хлевы и раздачи необходимого количества корма.

Вертикальный смеситель кормораздатчик – это вид прицепного оборудования, которое соединяется с трактором за счет тягового бруса и получает привод от хвостового вала трактора. Вертикальные смесители кормов различаются по величине объема бункера: 3м<sup>3</sup>, 6м<sup>3</sup>, 8м<sup>3</sup>, 10м<sup>3</sup>, 12м<sup>3</sup>, 14м<sup>3</sup>, 20 м<sup>3</sup>.

Вертикальный смеситель кормораздатчик состоит из следующих основных узлов: шасси, бункера, устройство передачи мощности, шнековый смеситель, ножи для измельчения грубых кормов, подающий шнек и несущие колеса.



Технические характеристики	СМ-1216	СМ-1217	СМ-1218	СМ-1220
Объем бункера / м <sup>3</sup>	3	6	8	12
Длина / мм	4190	4900	4900	6150
Высота/ мм	2240	2480	2580	2650
Ширина / мм	1750	1850	2245	2350
Рабочая ширина / мм	2050	2150	2600	2700
Масса / кг	1750	2300	2950	3800
Мощность трактора / Лс	30	40	50	70
Диаметр винта / мм	1700	1800	2150	2250
Обороты винта / об./мин	50	50	50	50
Обороты трактора / об./мин.	540			
Устройство взвешивания	Опционально			
Загрузочный ковш	Опционально			
Система смазки	Опционально			
Двойной разгрузочный блок	Опционально			

## **Corner Machinery**

Компания, которая специализируется на производстве сельскохозяйственного оборудования. Сельскохозяйственная техника нашего производства популярна и используется во многих странах благодаря широкому модельному ряду и ассортименту. Представительства компании работают в 15 странах.

Согласно политики нашей компании, мы говорим:

" Если качество это стиль жизни , то мы продаем качество ... "

Ассортимент продукции нашей компании:

Почвообрабатывающая Техника

Посевная и Посадочная Техника

Уборочная Техника

Кормозаготовительная Техника

Разбрасыватели Удобрений и Опрыскиватели

### **РАЗБРАСЫВАТЕЛИ УДОБРЕНИЙ И ОПРЫСКИВАТЕЛИ** **Колесно-пальцевые грабли**

#### **Описание**



Колесно-пальцевые грабли – это вид навесного сельскохозяйственного оборудования, которое используется для сгребания проявленной травы из прокосов в валки, ворошение ее в прокосах и обрачивание валков. В зависимости от модели, различают грабли-ворошилки на 4,5,8 и 10 дисков с заостренными зубцами – пальцевые колеса.

Пальцевые колеса с зубцами особой изогнутой формы изготовлены из качественной пружинной стали, что позволяет им работать на кручение в двух плоскостях без поломок даже при попадании камней.



### **ГРАБЛИ-ВОРОШИЛКИ**

#### **Описание**

Грабли-ворошилки – это вид навесного сельскохозяйственного оборудования, которое используется для сгребания скошенной травы и сена после покоса, подготовки травы и сена для дальнейшей уборки с помощью тюкового пресс-подборщика и прочей уборочной техники.



### **КВАДРАТНЫЙ ТИП РАЗБРАСЫВАТЕЛЬ УДОБРЕНИЙ**

#### **Описание**

Как известно, наибольшая эффективность использования сельскохозяйственных угодий достигается только с помощью своевременного и правильного внесения удобрений в почву. После проведения агрохимических исследований почвы и определения культур, выращивание которых планируется, следует обеспечить наилучшие условия питания растений и осуществить внесение в почву недостающих питательных веществ, таких

как: азот, фосфат, натрий, калий, сера и прочие, иными словами, осуществить удобрение почвы.

Как однодисковые, так и двухдисковые разбрасыватели удобрений разработаны для достижения максимальной эффективности при выращивании различных культур, и, благодаря своей прочности и надежности, могут продуктивно использоваться на протяжении длительного периода.

## **КОНУСНЫЙ ТИП РАЗБРАСЫВАТЕЛЬ УДОБРЕНИЙ**

### **Описание**

Как известно, наибольшая эффективность использования сельскохозяйственных угодий достигается только с помощью своевременного и правильного внесения удобрений в почву. После проведения агрохимических исследований почвы и определения культур, выращивание которых планируется, следует обеспечить наилучшие условия питания растений и осуществить внесение в почву недостающих питательных веществ, таких как: азот, фосфат, натрий, калий, сера и прочие, иными словами, осуществить удобрение почвы.

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## **ГОРИЗОНТАЛЬНЫЙ ТИП РАЗБРАСЫВАТЕЛЬ УДОБРЕНИЙ**

### **Описание**

Как известно, наибольшая эффективность использования сельскохозяйственных угодий достигается только с помощью своевременного и правильного внесения удобрений в почву. После проведения агрохимических исследований почвы и определения культур, выращивание которых планируется, следует обеспечить наилучшие условия питания растений и осуществить внесение в почву недостающих питательных веществ, таких как: азот, фосфат, натрий, калий, сера и прочие, иными

словами, осуществить удобрение почвы.

Как однодисковые, так и двухдисковые разбрасыватели удобрений разработаны для достижения максимальной эффективности при выращивании различных культур, и, благодаря своей прочности и надежности, могут продуктивно использоваться на протяжении длительного периода.



## **КОМБИНИРОВАННАЯ СЕЯЛКА**

### **Описание**

Сеялка – это тип легкого в эксплуатации прицепного оборудования, который используется для беспрерывного и равномерного внесения в открытые дисковыми сошниками борозды семян зерновых, кормовых и бобовых культур, а также удобрений в

заданном количестве и на заданную глубину за счет шнекового высевающего аппарата. Комбинированная сеялка открывает борозды нужной глубины и укладывает семена согласно нормам высева, настроенным на соответствующем механизме машины. После укладки семян в борозду заделывающее приспособление засыпает открытые в ходе посева бороздки почвой, и выравнивает поверхность поля.

## НАВЕСНЫЕ И ПРИЦЕПНЫЕ ТУРБО ОПРЫСКИВАТЕЛИ



### Описание

Турбо опрыскиватель предназначен для сельскохозяйственной защиты и обработки фруктовых деревьев, полей, лугов. При выборе этого метода борьбы с заболеваниями и вредителями следует учитывать, что эффективность зависит как от правильно подобранных рабочего раствора, так и от производительности выбранной машины и ее соответствия опрыскиваемым культурам. Бак агрегата наполняется водой и раствором. Всегда следует соблюдать рекомендуемые пропорции использования

воды и раствора. Смешивание обеих жидкостей осуществляется в баке агрегата автоматически. Опрыскиватель – это сельскохозяйственная техника, которая крепится к трехточечной системе навески трактора с помощью рамы, и получает привод вала отбора мощности через кардально-телецкопический вал. Баки машины, изготовленные из усиленного

полиэстера и полиэтилена, защищены от неблагоприятного внешнего воздействия и разрушительной коррозии.

## НАВЕСНОЙ ТИП ОПРЫСКИВАТЕЛЕЙ

### Описание

Навесной опрыскиватель предназначен для сельскохозяйственной защиты и обработки полей. При выборе этого метода борьбы с заболеваниями и вредителями следует учитывать, что эффективность зависит как от правильно подобранных рабочего раствора, так и от производительности выбранной машины и ее соответствия опрыскиваемым культурам. Бак агрегата наполняется водой и раствором. Всегда следует соблюдать рекомендуемые пропорции использования воды и раствора. Смешивание обеих жидкостей осуществляется в баке агрегата автоматически.

Опрыскиватель – это сельскохозяйственная техника, которая крепится к трехточечной системе навески трактора с помощью рамы, и получает привод вала отбора мощности через кардально-телецкопический вал.

Баки машины, изготовленные из усиленного полиэстера и полиэтилена, защищены от неблагоприятного внешнего воздействия и разрушительной коррозии.



- Для получения дополнительной информации, с Вашими запросами и интересующими вопросами, пожалуйста, не стесняйтесь обращаться к нам.

Условия сотрудничества:

- После выбора интересующей вас техники, оформляется заказ.
- Условия поставки товара осуществляется на условиях INCOTERMS 2010.
- После согласования условий поставки, заключаем договор купли-продажи по внешнеторговым стандартам.
- Затем выставляется счет на оплату товара.
- Расчеты за поставляемый товар производится в форме 50 % предварительной оплаты +50 % оплаты перед погрузкой товаров(подтверждение погрузки осуществляется следствием предоставления фотографий).
- Датой оплаты признается дата получения денежных средств на расчетный счет продавца.



С наилучшими пожеланиями,  
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